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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,563	06/30/2003	Christoph Schmidt	MERCK-2715	7256
23599	7590	10/13/2006		EXAMINER
MILLEN, WHITE, ZELANO & BRANIGAN, P.C. 2200 CLARENDON BLVD. SUITE 1400 ARLINGTON, VA 22201			STITZEL, DAVID PAUL	
			ART UNIT	PAPER NUMBER
			1616	

DATE MAILED: 10/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/608,563	SCHMIDT ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	David P. Stitzel, Esq.	1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 18 April 2006.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-11 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____.                                     |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____.   | 6) <input type="checkbox"/> Other: _____.                         |

## OFFICIAL ACTION

### *Acknowledgment of Receipt*

Receipt of the Applicant's Response, which was filed on April 18, 2006, in response to the Official Action dated October 18, 2005, is acknowledged.

### *Status of Claims*

Claim 1 was amended by an Amendment that accompanied the aforementioned Response. As a result, claims 1-11 are currently pending and therefore examined herein on the merits for patentability.

### *Nonstatutory Double Patenting*

A nonstatutory double patenting rejection of the "obviousness-type" is based on a judicially created doctrine grounded in public policy so as to prevent not only the unjustified or improper timewise extension of the "right to exclude" granted by a patent, but also possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re White*, 405 F.2d 904, 160 USPQ 417 (CCPA 1969); *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968); and *In re Sarett*, 327 F.2d 1005, 140 USPQ 474 (CCPA 1964).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned or assigned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. Effective January 1, 1994, a registered attorney or agent of record may sign

a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR § 3.73(b).

When considering whether the invention defined in a claim of an application is an obvious variation of the invention defined in the claim of a patent, the disclosure of the patent may not be used as prior art. See MPEP § 804. However, this does not mean that one is absolutely precluded from all use of the patent disclosure. See MPEP § 804. For example, the specification can always be used as a dictionary to learn the meaning of a term in the patent claim. *In re Boylan*, 392 F.2d 1017, 157 USPQ 370 (CCPA 1968). Furthermore, *those portions of the specification which provide support for the patent claims may also be examined and considered* when addressing the issue of whether a claim in the application defines an obvious variation of an invention claimed in the patent. *In re Vogel*, 422 F.2d 438, 441-442, 164 USPQ 619, 622 (CCPA 1970). The court in *Vogel* stated that one must first “determine how much of the patent disclosure pertains to the invention claimed in the patent” because only “[t]his portion of the specification supports the patent claims and may be considered.” The court in *Vogel* also pointed out that “this use of the disclosure is not in contravention of the cases forbidding its use as prior art, nor is it applying the patent as a reference under 35 U.S.C. § 103, since only the disclosure of the invention claimed in the patent may be examined.”

1. Claims 1-11 of the instant application stand rejected under the judicially created doctrine of non-statutory obviousness-type double patenting as being unpatentable over conflicting claims 1-12 of U.S. Patent 6,596,070 (hereinafter the conflicting Schmidt ‘070 patent) for the reasons of record.

***Claim Rejections - 35 U.S.C. § 102***

The following is a quotation of the appropriate paragraph of 35 U.S.C. § 102, which forms the basis of the anticipation rejections as set forth under this particular section of the Official Action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by International Patent Application Publication WO 99/20695 (hereinafter the Schmidt '695 publication) for the reasons of record.

***Claim Rejections - 35 U.S.C. § 103***

The following is a quotation of the appropriate paragraph of 35 U.S.C. § 103, which forms the basis of the obviousness rejections as set forth under this particular section of the Official Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. § 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 1-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over International Patent Application Publication WO 99/20695 (hereinafter the Schmidt '695 publication) for the reasons of record.

***Examiner's Response to Applicant's Remarks***

Although Applicants' arguments as set forth in the aforementioned Response have been fully considered in light of the claims as currently amended, they are not persuasive.

1. 35 U.S.C. § 102(b) rejection of claims 1-11 based on the Schmidt '695 publication.

Applicants argue on page 4 of the aforementioned Response, that the Schmidt '695 publication does not disclose that titanium dioxide exists in rutile form, as instantly claimed. In response to Applicants' arguments, titanium dioxide only exists in four different forms, namely rutile, anatase, brookite and titanium dioxide (B). It was very well known in the art at the time the instant application was filed that rutile is inherently the most thermodynamically stable form of titanium dioxide, thus exhibiting superior heat stability, weatherability, and durability in comparison to the other forms of titanium dioxide. In addition, it was also very well known in the art at the time the instant application was filed that rutile inherently possesses preferred properties of physical strength and chemical purity with respect to the other forms of titanium dioxide. Furthermore, it was very well known in the art at the time the instant application was filed that rutile inherently exhibits the highest refractive index in comparison to the other forms of titanium dioxide, thus making rutile the preferred form of titanium dioxide for use as a coating pigment. Given the common knowledge present within the state of the art at the time the instant application was filed and the fact that the term "titanium dioxide" represents such a sufficiently small genus of only four species, one of ordinary skill in the art would have

immediately envisioned rutile as being the particular form of titanium dioxide incorporated within the pigment formulation of Schmidt '695 publication.

Applicants argue on pages 4 and 5 of the aforementioned Response, that the thickness of the interlayers disclosed in the Schmidt '695 publication do not have values of 0.5 nm, as instantly claimed. In response to Applicants' arguments, the interlayers, as instantly claimed, do not have a thickness of 0.5 nm, but rather a thickness ranging from 0.5 nm to 20 nm. Similarly, the Schmidt '695 publication likewise discloses interlayers having a thickness ranging from 1 nm to 50 nm, preferably from 1 nm to 40 nm, and more preferably from 1 nm to 30 nm (column 4, lines 15-17), thereby overlapping and thus anticipating the instantly claimed range of interlayer thickness.

2. 35 U.S.C. § 103(a) rejection of claims 1-11 based on the Schmidt '695 publication.

Applicants argue on page 5 of the aforementioned Response, that the pigment composition as instantly claimed exhibits significantly increased brightness, greater luster, a more pronounced color flop and higher stability, as compared to the pigment formulation of the Schmidt '695 publication. In response to Applicants' arguments, the "discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer." See *Atlas Powder Co. v. Ireco Inc.*, 51 USPQ 2d 1943, 1947 (Fed. Cir. 1999). Therefore, merely claiming a new use, new function or unknown property, which is inherently present in the prior art, does not necessarily make the claim patentable. See *In re Best*, 195 USPQ 430, 433 (CCPA 1977); and MPEP § 2112. Furthermore "products of identical chemical composition can not have mutually exclusive properties," since a chemical composition and its properties are inseparable. See *In re Spada*, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990); and MPEP §

2112. Therefore, if the prior art teaches an identical chemical composition, the properties Applicants are disclosing and/or claiming are necessarily present. See MPEP § 2112.

3. Nonstatutory Double Patenting rejection of claims 1-11 based on the conflicting Schmidt '070 patent.

Applicants argue that because their arguments have overcome the 35 U.S.C. §§ 102(b) and 103(a) rejections of claims 1-11, that the non-statutory double patent rejections have apparently likewise been overcome. In response to Applicants arguments, Applicants' arguments as set forth in the aforementioned Response are not persuasive and claims 1-11 of the instant application stand rejected under the judicially created doctrine of non-statutory obviousness-type double patenting as being unpatentable over conflicting claims 1-12 of U.S. Patent 6,596,070 (hereinafter the conflicting Schmidt '070 patent) for the reasons of record.

*Conclusion*

Since no new grounds of rejection are made as set forth hereinabove, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR § 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR § 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

*Remarks*

The following is a list of prior art patents made of record and considered not only pertinent to the Applicant's disclosure, but also indicative of the common knowledge present within the state of the art at the time the instant application was filed:

- U.S. Patent 3,929,501 (the Dunn '501 patent) (stating that "Because of its physical strength and chemical purity rutile is preferably used") (column 2, lines 7-9);
- U.S. Patent 4,200,474 (the Morris '474 patent) (stating that "Rutile is the most thermodynamically stable form of titanium dioxide") (column 4, lines 31-34);
- U.S. Patent 5,451,632 (the Okumura '632 patent) (stating that "the rutile type titanium dioxide having superior heat stability and weatherability is preferable") (column 12, lines 50-51); and
- U.S. Patent 5,565,025 (the Schraml-Marth '025 patent) (stating that "TiO<sub>2</sub> is deposited on the platelet-shaped substrate in the anatase form. Further, a process for depositing the rutile form of TiO<sub>2</sub> may be used and ... [that] this form, compared with the anatase form, has a higher refractive index, so that rutile form platelet-shaped substrates have a distinctly higher luster than anatase from titanium dioxide mica pigments and are therefore frequently preferred") (column 2, lines 37-44).

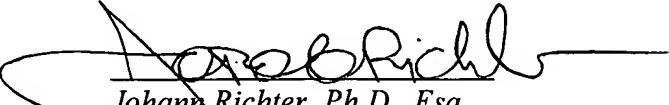
***Contact Information***

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to David P. Stitzel, M.S., Esq., whose telephone number is 571-272-8508. The Examiner can normally be reached on Monday-Friday, from 7:30AM-6:00PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Johann Richter, Ph.D., Esq., can be reached at 571-272-0646. The central fax number for the USPTO is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published patent applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished patent applications is only available through Private PAIR. For more information about the PAIR system, please see <http://pair-direct.uspto.gov>. Should you have questions about acquiring access to the Private PAIR system, please contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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